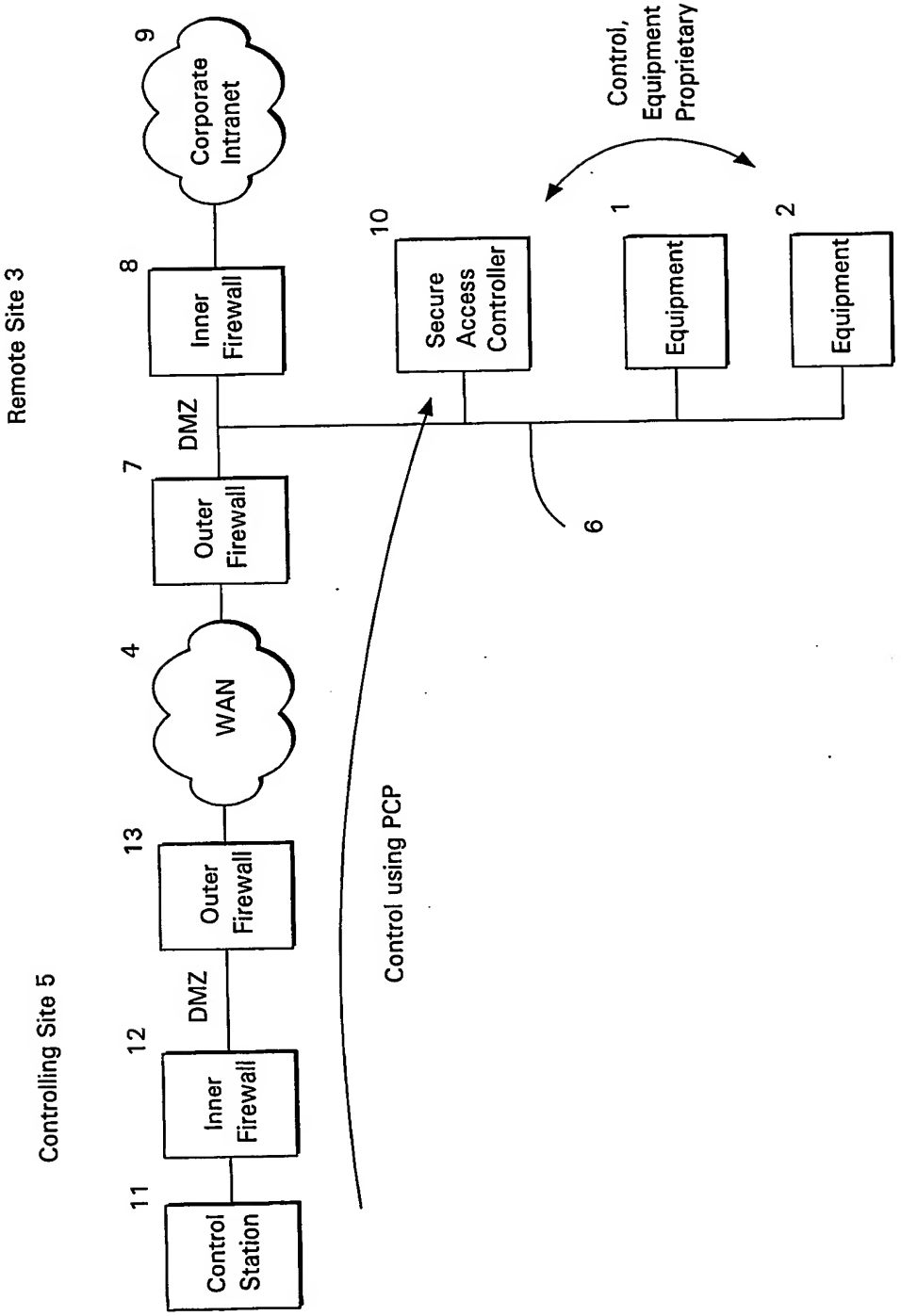
Remote Site 3
Controlling Site 5
Corporate Intranet
9
Inner Firewall
8
DMZ
Outer Firewall
7
WAN
4
Outer Firewall
13
DMZ
Inner Firewall
12
Control Station
11
Control using PCP
Secure Access Controller
10
Equipment
1
Equipment
2
Control, Equipment Proprietary
6

Figure 1

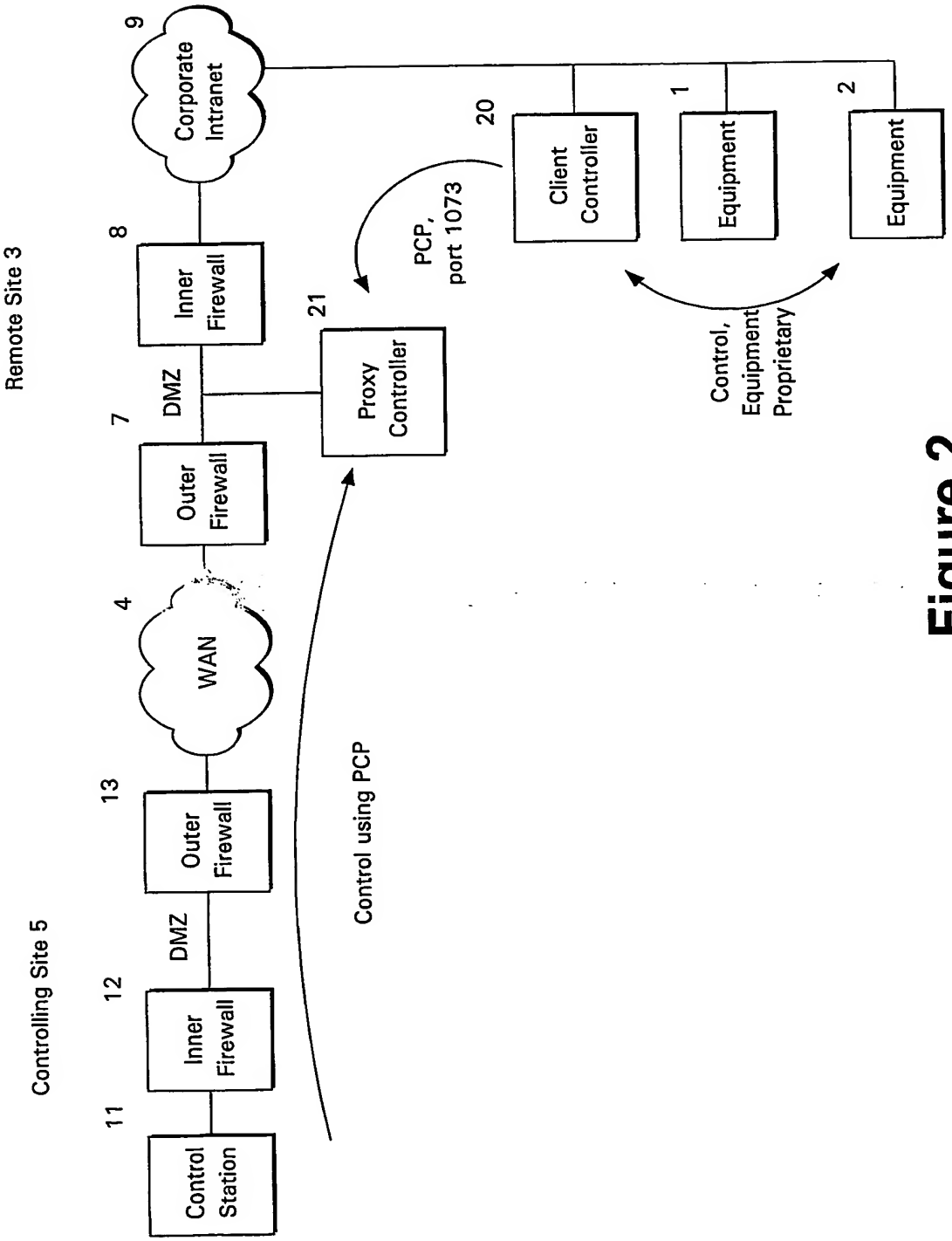
Remote Site 3
Controlling Site 5
Corporate Intranet
9
Inner Firewall
8
DMZ
7
Outer Firewall
WAN
4
Outer Firewall
13
DMZ
12
Inner Firewall
11
Control Station
Proxy Controller
21
Client Controller
20
Equipment
1
Equipment
2
PCP, port 1073
Control, Equipment Proprietary
Control using PCP

Figure 2

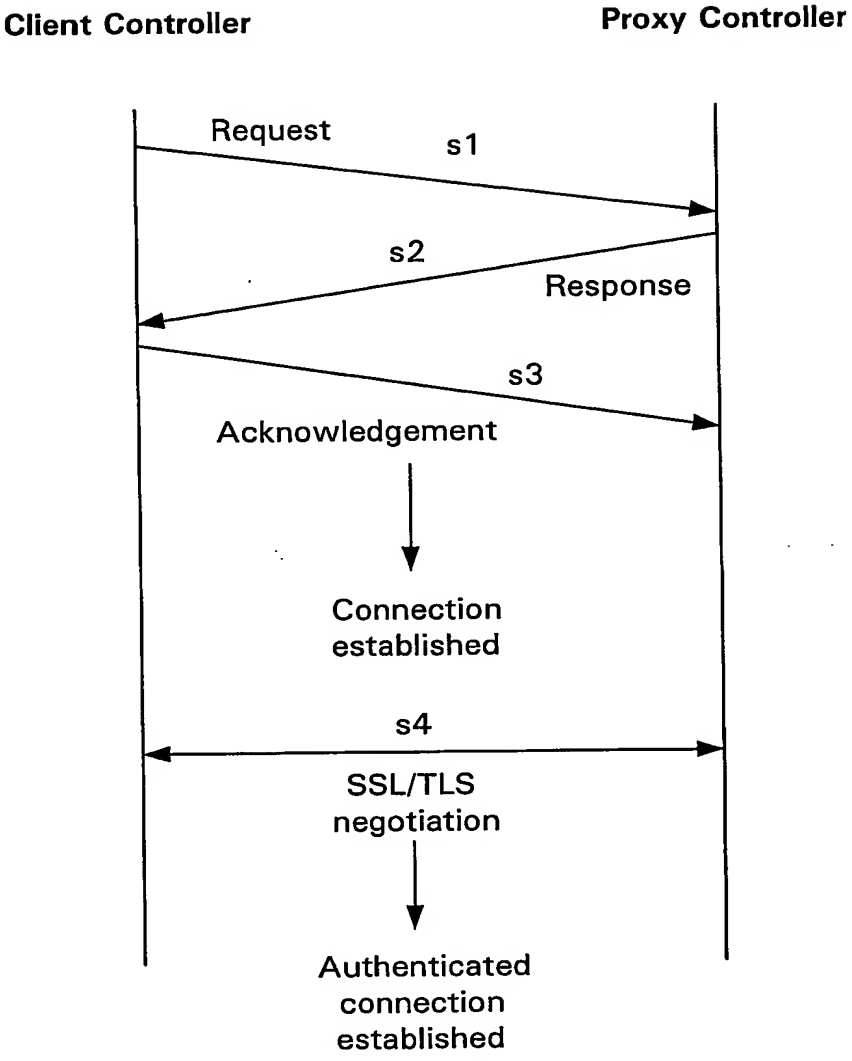
Client Controller
Proxy Controller
Request
s1
s2
Response
s3
Acknowledgement
Connection established
s4
SSL/TLS negotiation
Authenticated connection established

Figure 3

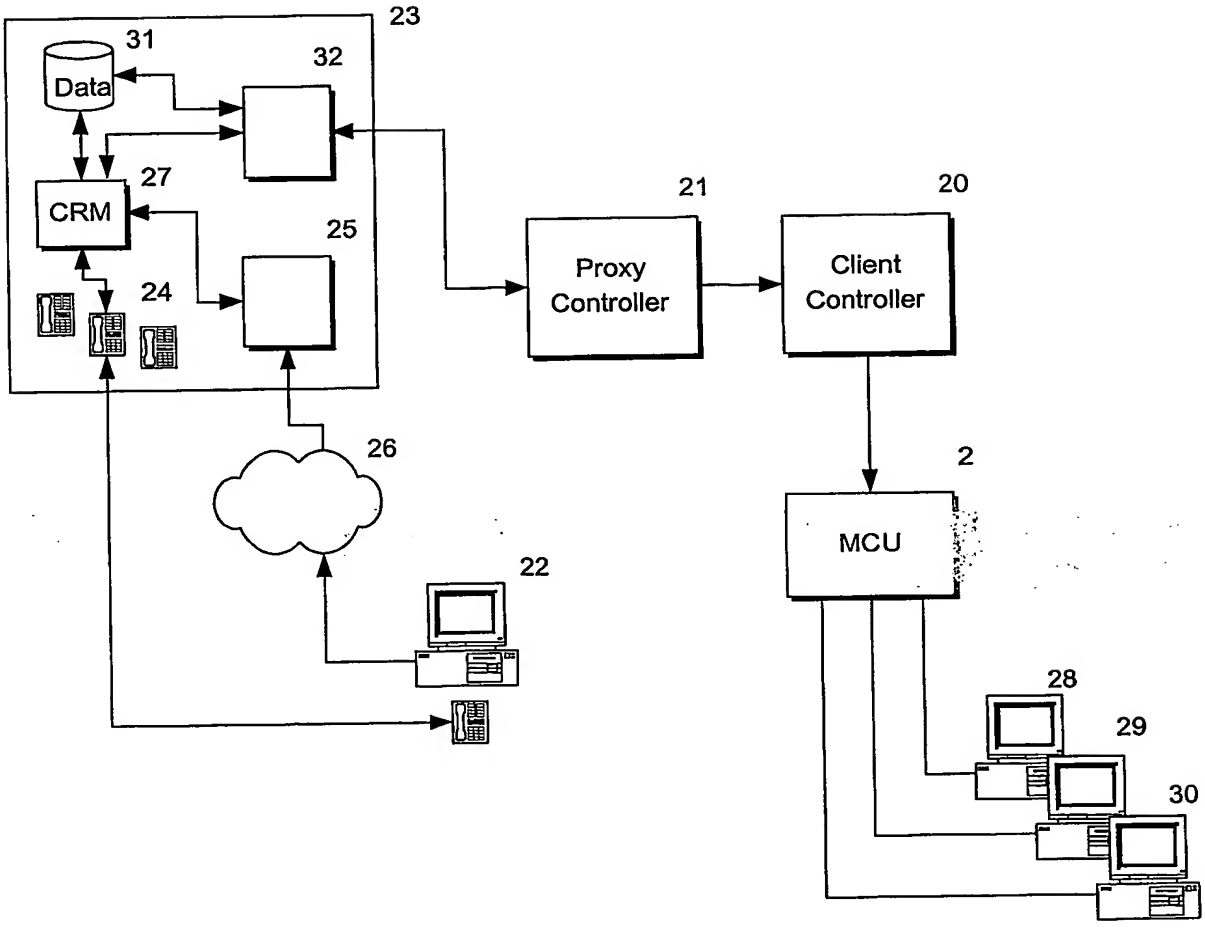
23
31
Data
32
27
CRM
25
24
21
Proxy Controller
20
Client Controller
26
2
MCU
22
28
29
30

Figure 4

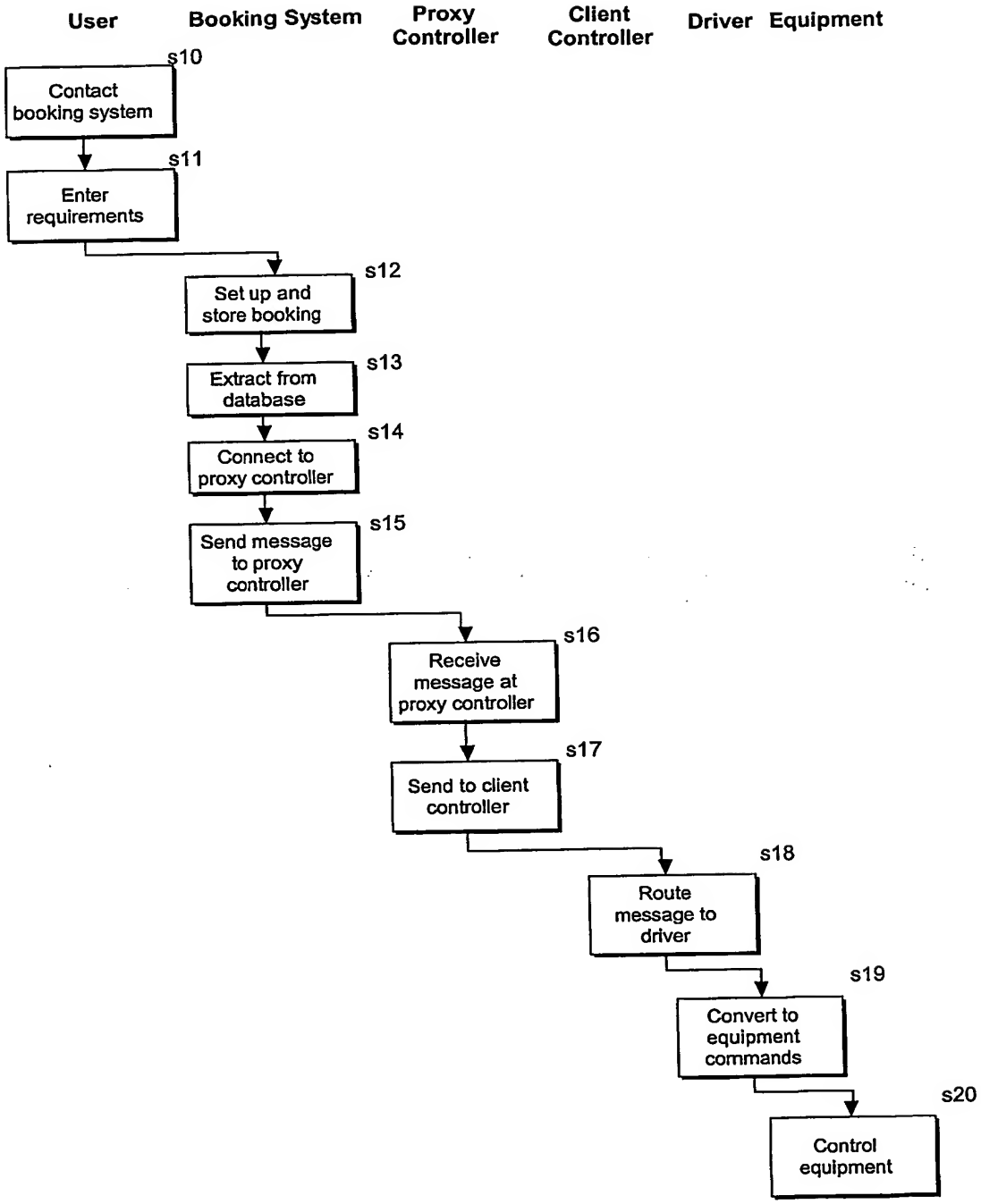
User
Booking System
Proxy Controller
Client Controller
Driver
Equipment
s10
Contact booking system
s11
Enter requirements
s12
Set up and store booking
s13
Extract from database
s14
Connect to proxy controller
s15
Send message to proxy controller
s16
Receive message at proxy controller
s17
Send to client controller
s18
Route message to driver
s19
Convert to equipment commands
s20
Control equipment

Figure 5

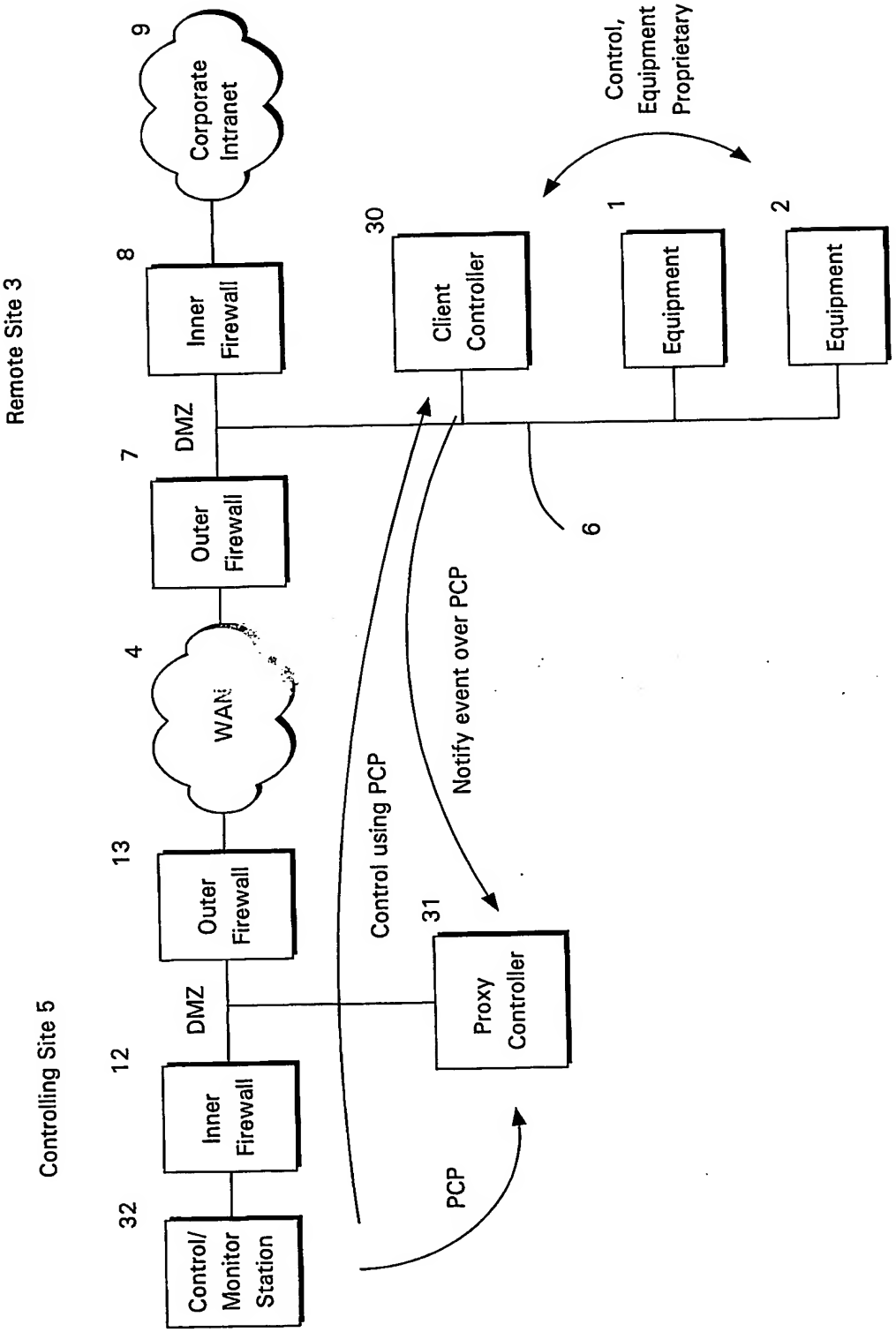
Remote Site 3
Controlling Site 5
Corporate Intranet
9
Inner Firewall
8
DMZ
7
Outer Firewall
WAN
4
Outer Firewall
13
DMZ
12
Inner Firewall
32
Control/ Monitor Station
Client Controller
30
Equipment
1
Equipment
2
Control, Equipment Proprietary
6
Control using PCP
Notify event over PCP
PCP
Proxy Controller
31

Figure 6

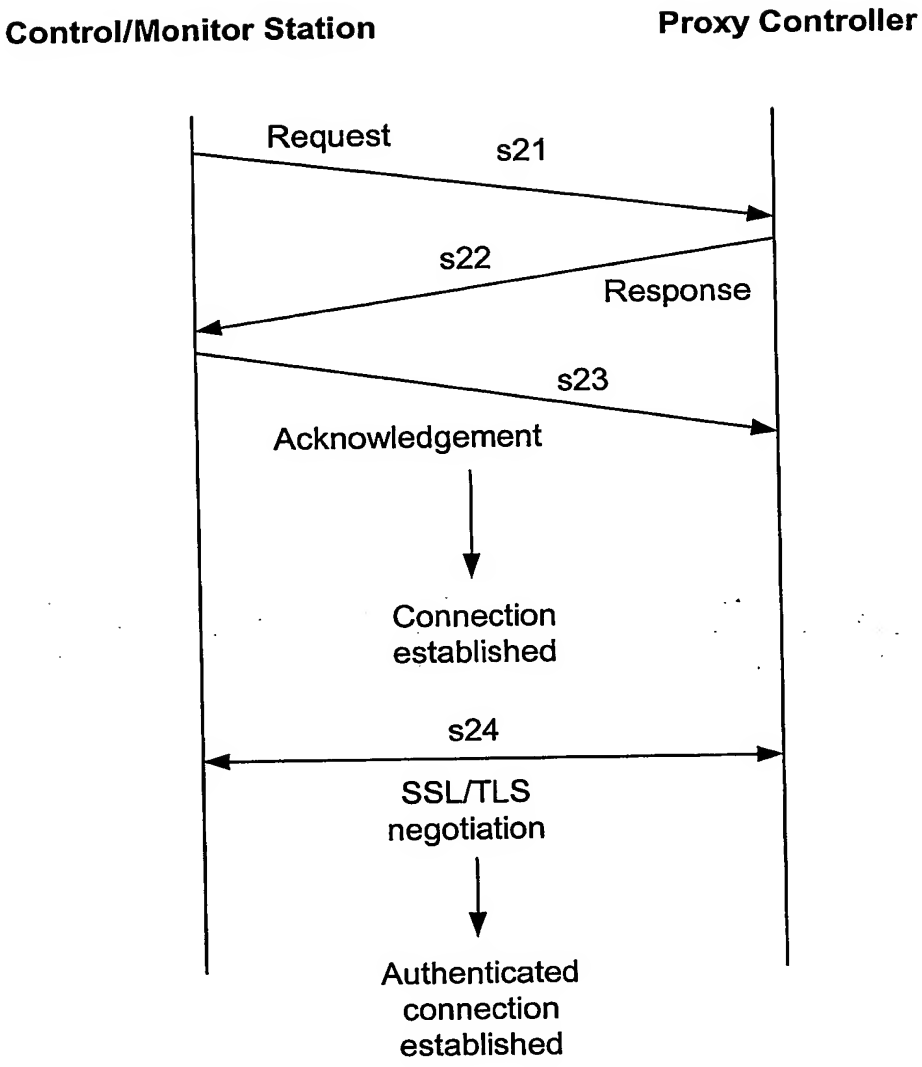
Control/Monitor Station
Proxy Controller
Request
s21
s22
Response
s23
Acknowledgement
Connection established
s24
SSL/TLS negotiation
Authenticated connection established

Figure 7

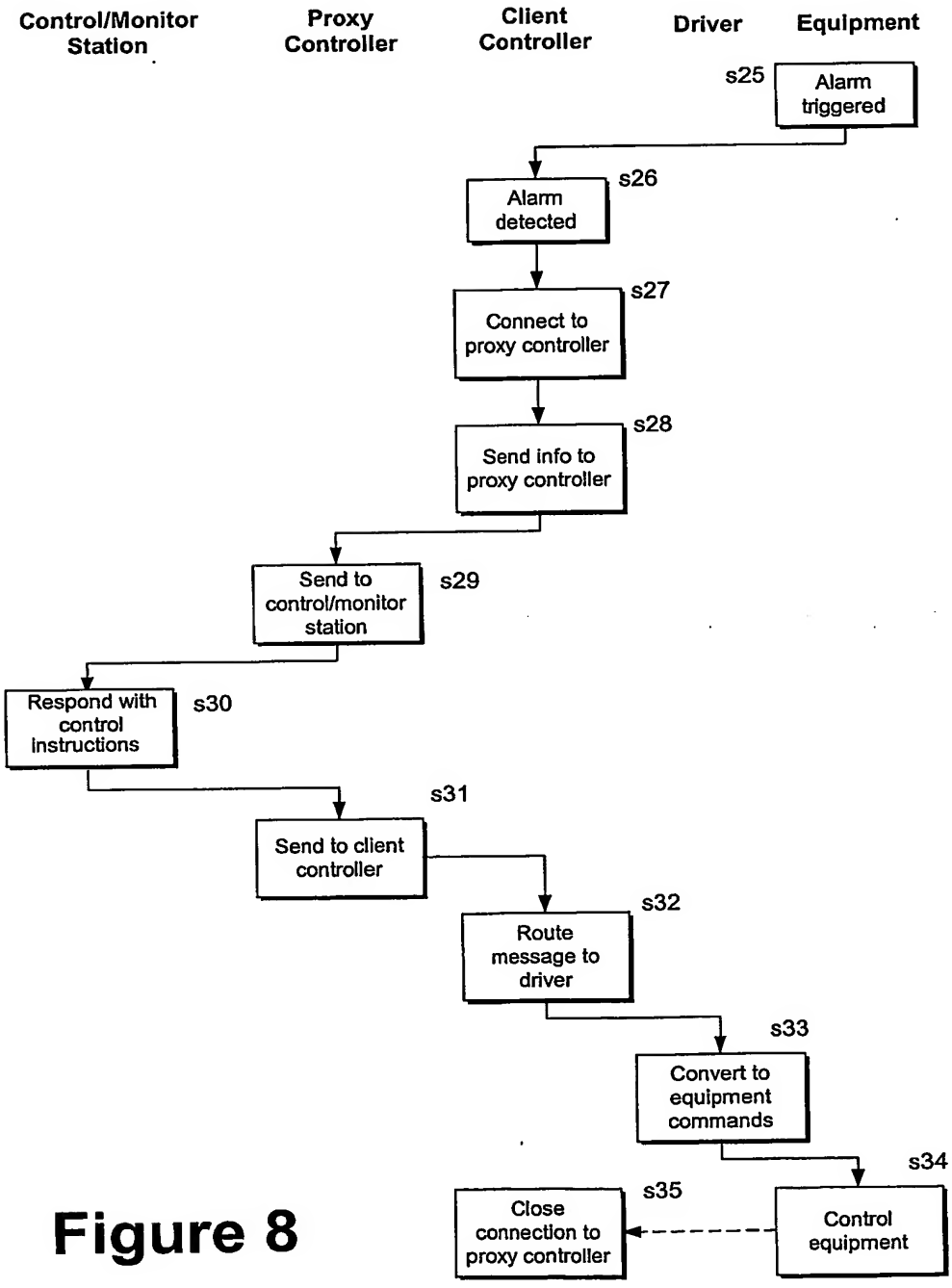
Control/Monitor Station
Proxy Controller
Client Controller
Driver
Equipment
s25
Alarm triggered
s26
Alarm detected
s27
Connect to proxy controller
s28
Send info to proxy controller
s29
Send to control/monitor station
s30
Respond with control instructions
s31
Send to client controller
s32
Route message to driver
s33
Convert to equipment commands
s34
Control equipment
s35
Close connection to proxy controller

Figure 8

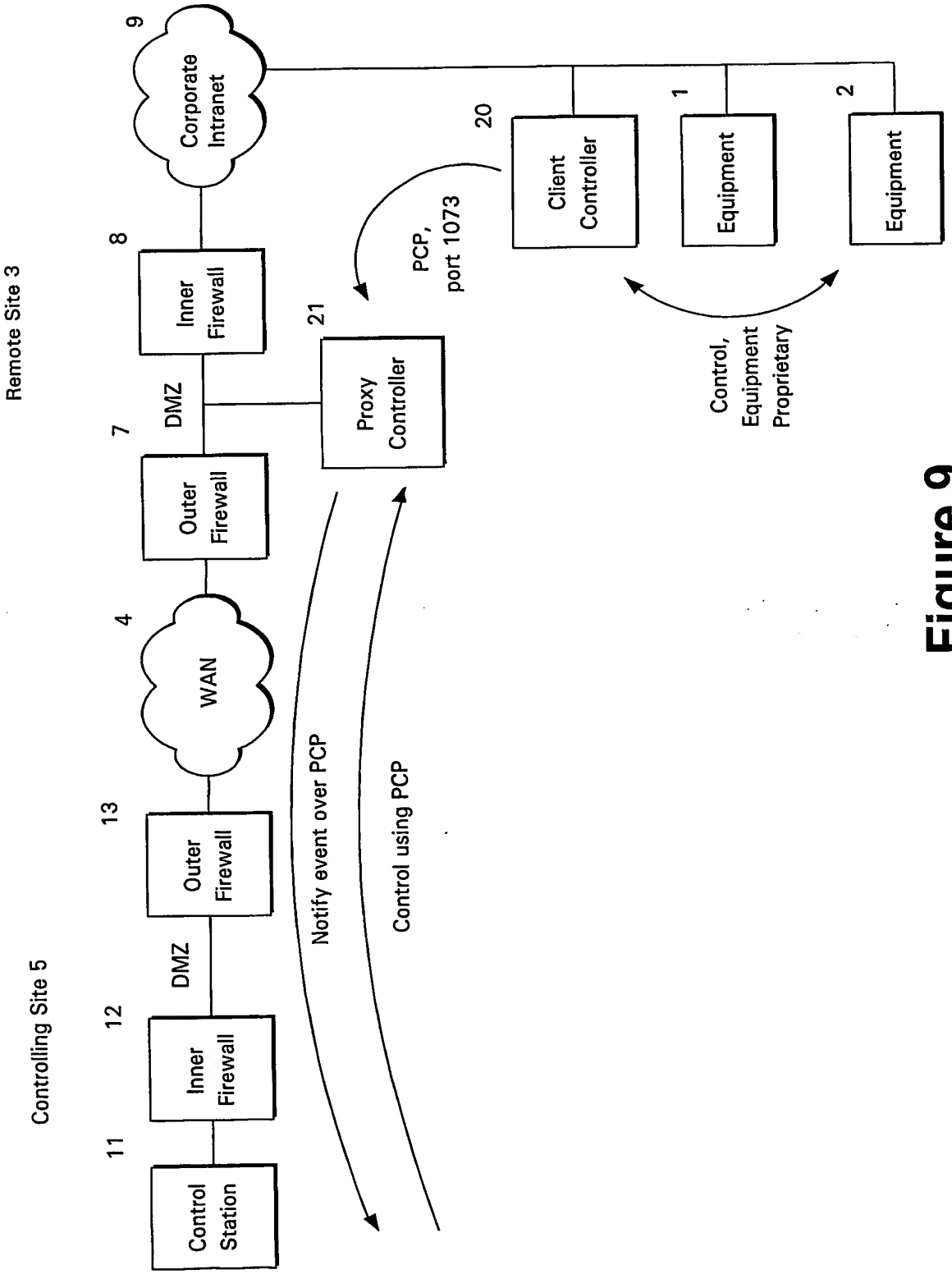
Remote Site 3
Controlling Site 5
Corporate Intranet
9
Inner Firewall
8
DMZ
7
Outer Firewall
WAN
4
Outer Firewall
13
DMZ
12
Inner Firewall
11
Control Station
Proxy Controller
21
Client Controller
20
Equipment
1
Equipment
2
PCP, port 1073
Control, Equipment Proprietary
Notify event over PCP
Control using PCP

Figure 9

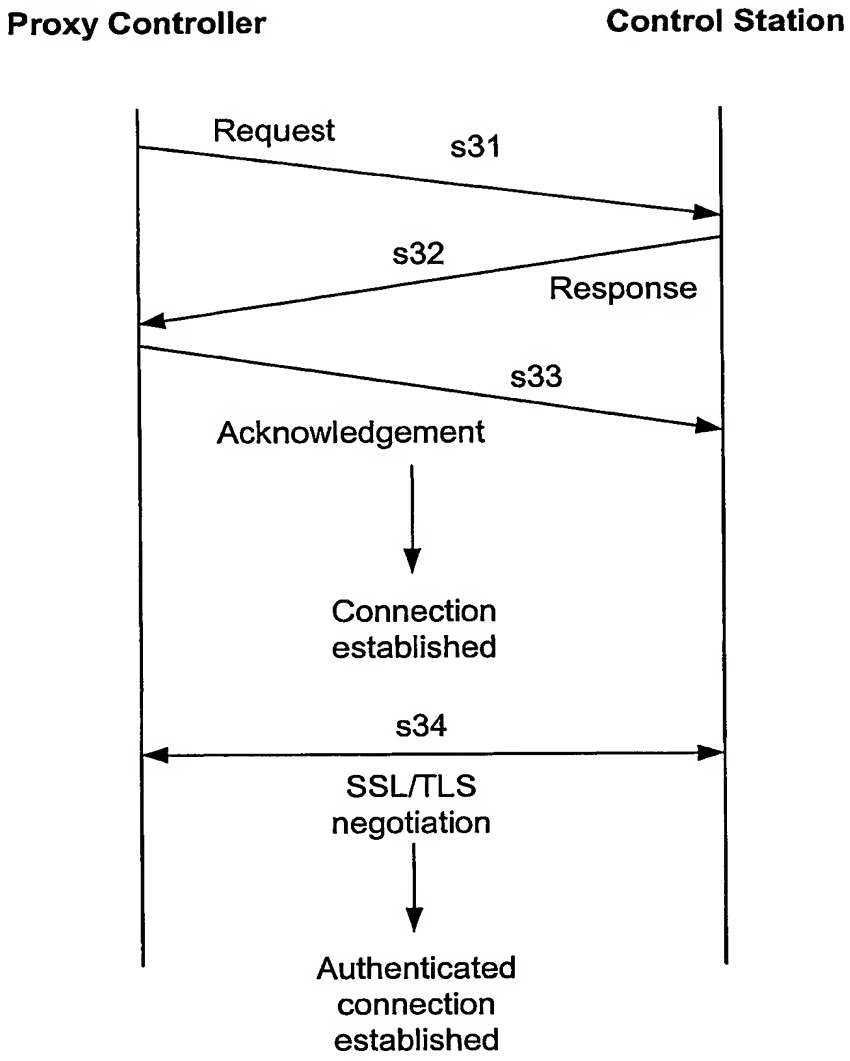
Proxy Controller
Control Station
Request
s31
s32
Response
s33
Acknowledgement
Connection established
s34
SSL/TLS negotiation
Authenticated connection established

Figure 10